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AUTHOR Shapiro, Arthur S.; And Others
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ABSTRACT

This paper develops a theory-practice view of administrative and organizational decision making. Its goals are to improve administrative decision-making processes, facilitate organizational change through faculty involvement, and increase the potential for success in education reform efforts. The first sections discuss the nature of theory and examine the relationship between theory and practice. The three major properties of a theory include generalization, analysis, and prediction. Limitations of theory and the requirements of validity and reliability are discussed. Rather than serving as objective maps of reality, it is concluded that theories provide a "guide to action." In theory and practice, organizational decision making as a social enterprise is viewed as a four-phase process: (1) recognizing the problem and developing a plan; (2) generating interactions among people involved; (3) negotiating; and (4) producing consequences. Organizational stability, however, is not possible or desirable, because people and situations change. Finally, several examples of ways to use the new paradigm are presented, including organizational decision making by Japanese automakers, policy analysis and action for governments, curriculum change in a school, and school restructuring. Recommendations for further study are offered. One figure is included. (LMI)

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FACILITATING ADMINISTRATIVE DECISION-MAKING AND ORGANIZATIONAL CHANGE VIA A DECISION-MAKING PROCESS AS SOCIAL ENTERPRISE

Wise decision-making comes from experience,
and experience comes from bad decisions.
Anonymous

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Arthur S. Shapiro
William F. Benjamin
John J. Hunt
Assisted by Sue Shapiro

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INTRODUCTION, PURPOSE, AND SIGNIFICANCE

A major trend surfacing recently in the American educational reform agenda consists of restructuring schools, particularly with site-based management or building-based administrative approaches. And, since restructuring essentially comprises a process to reshape large organizations into smaller units, this proves to be a complex and difficult enterprise. Another side of this coin focuses on enhancing teacher effectiveness. The third side of the coin involves efforts toward teacher empowerment. Unfortunately, teachers often are handicapped in restructuring and empowerment efforts since they usually are strangers wandering in the rarified lands of administration, of the administrative decision-making process, and of the consensus decision-making process.

The purpose of this narrative was threefold. The first was to develop a theory/practice of administrative and organizational decision-making to improve administrative decision-making, the heart of administration (Barnard, 1938; Wolf, 1972; Griffiths, 1959). The second goal was to facilitate organizational change by promoting faculty involvement. The third objective was to increase the potential for success in reform efforts (TQM, site-based management, middle schools) with an effective decision-making

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process.

A decision-making strategy can provide considerable value for those involved in simple or in complicated and lengthy enterprises. Primarily, it can help participants predict the precise steps of the decision-making process they will encounter. A theory/practice of decision-making will facilitate administrators, supervisors, and teachers in describing, analyzing, and predicting the precise phases to utilize in recognizing an issue or a problem, and then in designing, developing, and implementing plans and processes to make effective decisions in organizations. The person(s) and organization(s) in possession of such knowledge will have a powerful tool in making the social process of organizational decision-making more effective and efficient. Such a strategy can provide educators, struggling in the day-to-day hurly-burly of working both with each other and with their students, with an effective approach to develop and generate decisions that make more sense professionally. In short, educators can gain more control over both their professional lives and their organizations.

Theoretical Perspective

The theoretical perspective is based on three propositions. The first contends that decision-making is at the heart of the administrative process, crucial for any administrator's success in any organization. Barnard (1938) in an interview shortly before his death (Wolf, 1972), addressed this viewpoint asserting that decision-making is the fundamental administrative process, "...basic to all the others" (p. 22).

Next, any massive change in organizations must involve people on all levels in key decision-making, a process which promotes their support. Barnard (1938) focused on this

in delineating the three indispensable components of all formal organizations. The first consists in developing a common purpose. The next comprises establishing a communications system to communicate the purpose throughout the organization. The third includes developing a system of cooperation both to communicate and to achieve the common purpose. These comprise three fundamental functions of the executive. Campbell, Corbally, and Ramseyer (1962) observed that the task of the administrator in developing a common purpose was to facilitate establishing it, not to establish it himself or herself.

RESEARCH METHOD

The four authors deliberately met to create a theory of curriculum and in the process produced a theory of curriculum development (Shapiro, Benjamin, Hunt, & Shapiro, 1995). The four-year process utilized in developing the theory was experiential, much as that used by Dewey, George Herbert Mead (1934), Freud, and others. We realized that we had also created a broader construct, an organizational decision-making process that comprises a social enterprise in nature.

A DEFINITION

Before we can explore the nature of this theory/practice of the process of organizational decision-making as a social enterprise, it is useful to review the nature of theory briefly. Generating any theory is an enterprising task. Claiming to have developed a theory of organizational decision-making is an imposing statement, since any claim to have designed any theory has to meet a number of rigorous tests, the first of which is to define theory very clearly.

Daniel Griffiths (1959) developed his definition of theory from the work of Herbert

Feigl (1951), asserting, "A theory is essentially a set of assumptions from which a set of empirical laws (principles) may be derived.... A theory, itself, cannot be proved by direct experiment. Two illustrations of this from the history of science demonstrate the point. The Copernican Theory of the Solar System was accepted some 150 years before there was direct evidence of its truth. Likewise, Boyle's Law and Guy-Lussac's Law, both experimentally derived, were known long before the dynamical theory of gasses was formulated" (pp. 28-29). Griffiths noted by his definition that a theory can only be substantiated, not proved, a notion that varies considerably from most people's beliefs.

THREE CHARACTERISTICS OF A THEORY:

OR, WHAT MAKES A THEORY A THEORY

For a proposal to be a theory, it must be: (1) Descrptive, (2) Analytical, and (3) Predictive.

Descriptive

For a theory to be descriptive, it must point to phenomena that clearly are being described. As an example, the germ theory of disease describes a multitude of illnesses caused by germs, such as measles, chicken pox, tuberculosis and the like. Consequently, a theory of organizational decision-making must describe some aspect(s) of decision-making in organizations, such as its structure, the process by which it is developed, or other major aspects. Note that we are pointing in addition to the comprehensiveness of theory, that it covers a multitude of facts, or phenomena. A later section on comprehensiveness addresses this.

Analytic/Explanatory

The next test a theory must be prepared to pass is the analytic requirement. Any theory must be able to analyze the phenomena toward which it is pointing. The germ theory analyzes a host of diseases and also explains their onset and existence as being caused by germs. Causation is an analytic statement. A theory of organizational decision-making must enable its users to analyze some aspects of decision-making, whether it be the structure of decision-making, the process of developing decisions in organizations, or the implementation of decisions.

Predictive/Generalizable

Another major requirement for a theory to have any validity is that it must be predictive, or generalizable. That is, the single instance must be apply to all members of the category. For example, the germ theory of disease predicts that if germs are destroyed, all germ-based diseases will also terminate (hopefully, before their host). A host of medications from sulfa drugs to antibiotics are designed with this outcome in mind, destroying harmful germs and restoring a more healthy body. Therefore, for a theory of organizational decision-making to be a theory, it must in some way be predictive. Thus, it should have the capacity to predict structural aspects of organizational decision-making if the focus is on structure. Similarly, if its focus is on the processes of development and/or of implementation, clear and accurate predictions of those processes must be possible.

The Model and the Taxonomy - Theories?

With this definition of theory we are able further to distinguish among such devices as the model, which is more descriptive in nature, and the taxonomy, which is both

descriptive and analytic in nature in that it organizes phenomena, and theory. Zais (1976, pp. 91-93) defined models as "miniature representations that summarize data and/or phenomena and thus act as an aid to comprehension. In other words, 'models in science act like metaphors in language; they enlighten us by suggesting arguments by analogy from known resemblances to resemblances so far unnoticed.'" (O'Connor, 1957, p. 90). To clarify further, we note that Zais pointed to four kinds of models:

1. A physical or working model, often three-dimensional, to show how something works.

2. A conceptual or verbal model such as the industrial model of schooling.

3. A mathematical model, such as in chemistry and physics [Ohm's Law (amperes = volts/ohms)] which describes the relationships of three constructs in electricity.

4. A graphic representation, such as maps, grammatical diagrams of sentences, and other graphs which describe the components of the object, and which explain the relationships among its parts.

Next, the taxonomy comprises a classification device. As such it points out relationships, such as those in the Periodic Table of Elements. Each element can be analyzed in terms of its atomic weights, its electrons, protons, and other particles, and their relationships to each other. However, while we can see elements described and can analyze their relationships, neither the model nor the taxonomy is predictive, nor can they produce principles.

IS THEORY PRACTICAL: A CONTRADICTION?

Illustrations of theory appear to be useful at this point. The germ theory of disease

stated that certain germs will cause specific diseases. A derivation of combined gas laws (including Boyle's Law) predicted that when gasses expand, they will cool. In educational administration, Guba and Getzels (1957) proposed that administration comprises a social process in which behavior is conceived as both a function of the nomothetic and the idiographic functions of the social system. Griffiths (1959) set forth a theory of administration stating that it consists of decision-making.

Interestingly, these theories can and do provide considerable practical guidance to the practitioner. Much of medicine is based on countering harmful germs with antibiotics and other "germ-killers" to bring us back to health. Sadly, virally-induced colds are not yet "curable" by this means. Cryotherapy treatment (by intense cold materials) is heavily dependent upon compressing certain gasses, and then releasing them, which causes them to expand rapidly and become solid and very cold, which then can be utilized in treating various skin diseases. Application of the gas laws turns out to be quite useful in a physician's armamentarium of treatment options.

Guba and Getzels' (1957) theory generated many studies in administration and supervision focusing on role functions, role expectations, leadership styles, sources of conflict, and the like. Griffiths' (1959) formulation of administration as decision-making has had profound impact on the practice of administration. At the very least it points to the administrator's need to focus on decision-making in the process of administration. (And note that the word, "process", picks up Guba and Getzels' theory that administration is a social process).

If we develop Barnard's and Griffiths' notion that decision-making is crucial to

administration, we begin to ask a host of questions about that process. Who should be involved? When? For what purposes? Are there various types or levels of decision-making? We begin to become acutely aware of the process and focus considerable attention upon it.

However, Americans are wont to poke fun at theory and joke about absent-minded professors. We tend to separate theory and practice and claim wide gulfs separate the two. New teachers invariably are advised by veterans to forget what they learned in college, to drop all theory, an obvious impossibility in view of the connection between theory and practice in any professional and scientific field. The veteran teachers and administrators are actually insisting that the incoming professionals should abandon their research-based theories, generalizations, and concepts and should adopt the veterans' personal hunches and untested, non-research-based, and unarticulated theories instead (which they hold dear), while simultaneously denying their existence. In actuality, the two are intertwined, inescapably interrelated, as is noted above.

Additionally, John Dewey (1938) formulated an interesting view of the relationship between theory and practice. In Experience and Education he noted "a theory and practice of education which proceeds." Further, he observed, "...any theory and set of practices is dogmatic which is not based upon critical examination of its own underlying principles" [italics added]. Dewey's deliberate use of the singular informed us that he obviously perceived theory and practice as one and the same.

Colardarci and Getzels' (1955) paper on the relationship between theory and practice further investigated the connection between the two. "Intelligent action, in any sense of that

adjective, cannot be maximized without some guiding principles tentatively held." And, they noted, "the foregoing is by way of saying that theory is not merely an objective; it is a tool as well; it is a guide to practice." Additionally, they cited Dewey (1929),

> "Facts which are ... interrelated form a system, a science. The practitioner who knows the system... is evidently in possession of a powerful instrument for observing and interpreting what goes on before him. This intellectual tool affects his attitudes and modes of response in what he does. Because the range of understanding is deepened and widened, he can take into account remote consequences which were originally hidden from view and hence were ignored by his actions. Greater continuity is introduced; he does not isolate situations and deal with them in separation as he was compelled to do when ignorant of connecting principles. At the same time, his practical dealings become more flexible. Seeing more relations he sees more possibilities, more opportunities. He is emancipated from the need of following traditions and special precedents. His ability to judge being enriched, he has a wider range of alternative to select from in dealing with individual situations."

By now, it is apparent that the authors of this work perceive a close, indeed, a unitary connection between theory and practice. In the next section, Further Uses/Functions of Theory, this relationship will be explored more intensely.

FURTHER USES/FUNCTIONS OF THEORY

Objectivity

Before Thomas Kuhn (1962, 1970) dissected the nature of scientific thinking, scientists considered science as objective, as certain, as transcending personal or cultural or scientific bias. Formerly, scientists thought that because they utilized similar methods, the same outcomes for everyone in the field would result. They therefore considered research results to be objective, not influenced by personal, cultural, or scientific bias.

Kuhn, however, pointed out forcefully that scientists tended to march along the same conceptual track, filling in spaces, dotting t's and crossing i's, not perceiving outside

"accepted" parameters, general ways of thinking and approaches to their fields. So, scientists, like all of us, tend generally to follow the widely held beliefs, assumptions, concepts, constructs, and paradigms of "accepted" thinking, often rejecting radically new theories, new ways of thinking, and those mavericks who deviate from the mainstream in looking outside "the box". That is, stated Casti (1989), "...what is taken to be true at any moment is more a matter of social convention in the scientific community than it is a product of logical methods and procedures." Thus, while they point to objectivity, in the long run it is somewhat illusory, since the field will change radically over the long haul. (The section on Theory as a Guide to Collecting Facts further spells this out). Thus, all science is colored by the perspectives, assumptions, norms, values, culture, paradigms (their prevailing world view, their gestalt) of researchers. Researchers cannot escape their professional and social culture.

It is worthwhile to remember that the essence of scientific enterprise is to inquire into the nature of a field. Therefore, the scientific process is virtually equated with change, although resistance to change is a well-known phenomenon. Science has meant enormous change in all societies touched by the process and results of scientific method, of inquiry.

Comprehensiveness

Another value of theory is that it provides us with comprehensiveness. That is, a great range of events, or facts, or details can be covered through using one or a few abstract ideas or concepts. For example, a great range of diseases are covered by the germ theory of disease. Similarly, we do not have different laws for different falling objects as common sense implies. We do not have a law of falling feathers, or a law of falling two-by-fours.

They all tend to fall at the same speed (although they need a vacuum to reduce air resistance).

Thus, any theory of decision-making in organizations (or for any other area or subject) should have a degree of comprehensiveness and cover a wide variety of phenomena in the field. A process theory of organizational decision-making as a social enterprise, therefore, should deal with a wide range of decision-making processes and not be so specific that it omits much of the field.

A Guide to New Knowledge

A major value of science is its function as a guide to new knowledge. The discovery of the planet Neptune is one striking illustration of this function. Beyond the scope of the naked eye, Neptune was discovered because of irregularities in Uranus' elliptical motion. Since Newton's Laws of Motion had been developed and validated, any irregularity of Uranus (or any planet) was deduced to be caused by the presence of an object of considerable size in our Solar System. Through this theoretical deduction, astronomers discovered Neptune. A similar series of events and education led to the discovery of Pluto. And just recently, some scientists, making similar deductions, believed a tenth planet may exist.

If a theory of organizational decision-making is formulated focusing on processes, it should lead us to look for new processes involved in organizational decision-making, or it should lead us to heretofore unnoticed processes or aspects of them.

A Guide to Action

It follows from the preceding discussion that theory has considerable use as a guide

to action. If parents see their small child looking feverish, developing a running nose, looking red-eyed, they are likely to hunch that the child is ill. Quickly plopping a thermometer into the youngster's mouth is standard operating procedure since the parents undoubtedly are theorizing that their child is having problems with some disease caused by bacteria, hopefully, not a virus. For the astronomer, it focuses where s/he actually looks in investigating new celestial phenomena. For the administrative investigator, developer, or practitioner, theory can focus attention on structure, on process, or at any number of factors toward which the theory points. If it is a theory stressing process, it can help us to examine and analyze the processes involved in decision-making, assisting us to perceive those processes we may have overlooked. From such a formulation we may be able to generalize and learn more about the decision-making processes so that we can utilize them in our practice and become more effective and efficient. To be able to perceive the process more completely and objectively might enable us to predict the next phases or steps in the process and thus act more expeditiously -- and with greater precision. Such an outcome might enable us to utilize our limited resources to better advantage since we would not be involved in persistently re-inventing the spokes of the wheel.

Theory as a Guide to Collecting Facts

As Dewey noted (1931), "No amount of mere fact finding develops science nor the scientific attitude in either physics or social affairs. Facts merely amassed and piled up are dead; a burden which only adds to confusion. When ideas, hypotheses, begin to play upon facts, when they are methods for experimental use in action, then light dawns; then, it becomes possible to discriminate significant from trivial facts, and relations take the place

of isolated scraps."

The American focus on facts leads some to collect data and then to look for meaning (in theory). In reality this places the cart considerably in front of the horse. Certainly, facts are basic to building a theory. But when we start to collect facts we have to remind ourselves of Cohen's (1931) admonition, "Aye, but what facts?" Without a theory, facts could be gathered in copious quantities and we would not know which to select. Theory gives meaning to facts -- it helps select facts to examine.

Defining a Fact

A definition of fact appears appropriate at this point. Johnson's (1958) formulation appears useful. If you wish to recognize a fact, when you stumble across one, Johnson noted four properties pertaining to any fact:

1. it is necessarily incomplete.
2. it changes.
3. it is a personal affair - that is, it depends upon one's perception.
4. its usefulness depends upon the degree to which others agree with you concerning it.

Thus, a fact can be defined as an event or happening that two or more competent observers can agree upon. This definition points up the tentative and subjective nature of human observation upon which we build our theories.

Can a Theory Map "Reality"?

Some literature pointed to the nature of theory "mapping" reality (Zais, 1976). The above analysis focused on the subjective nature of this mapping. When one adds the

subjectivity of cultural factors and personal experiences and predilections influencing one's "maps," it becomes clear that our maps are personally and culturally distorted and we can never "really" know as a certainty that what we believe is not biased from either perspective.

Zais quoted Conant (1952) for this viewpoint,

> "Scientific theory should not be regarded as an objective map that describes and explains reality, but rather, as 'a policy -- an economical and fruitful guide to action by scientific investigators.'"

Zais proceeded,

> "Scientific, empirical-rational methods had shown that scientific theory was not, as had been thought, a value-free, objective description of reality, but a construct invented to advance human endeavors.
> ...Theory regarded as a map, as mentioned earlier, purports to tell us what the world is really like. It implies discovered knowledge, which literally represents an uncovering of the nature of reality. By contrast, modern scientific theory--that is, theory regarded as a policy for action --claims only to tell us what are the best representations of the world in terms of present experience. Knowledge from this point of view is regarded as constructed, that is, fabricated on the basis of human experience for particular ends-in-view. ...theory may vary accordingly as purposes for which it is constructed may vary.
>
> ...As we noted in a previous paragraph, all of the evidence available seems to indicate that the revolution in modern physics has rendered the "map" concept of scientific theory both an illusion and a presumption. Scientific theory not only does not describe the nature of reality, but it cannot. The reason, some physicists contend, is that theory is a product of human thought processes, and modern physics suggests that human thought processes may not correspond sufficiently to the structure of nature to permit us to think about it at all (Bridgman, 1952, pp. 86,87). Put another way, the nature of reality and the concept of existence are meaningless, not because of the nature of the world, but because of the construction of the human organism. It is simply impossible for man (sic) to transcend the human reference point. 'We cannot even express this in the way we would like.... It is literally true that the only way of reacting to this is to shut up'." Bridgman (1952).

As Bogan (Personal communication, 1992) noted, "all science is colored by the perspectives (and assumptions, values and culture) and understandings of the researchers... No human enterprise is an objective experience, and science is a human enterprise."

Validity and Reliability

The preceding discussion should provide evidence of the difficulty of obtaining validity. Working within the confines of our cultural perceptions and language we can aim for this result, but validity has culturally-based limitations. Notwithstanding, scientists seek validity, that is, evidence that we are measuring or viewing what we say we are measuring. Validity helps us develop some degree of confidence that what we say we are investigating is, indeed, what we are examining in its entirety.

Reliability is the term given to our probable certainty that the results obtained will be derived again using the same procedures or measures. For example, if we measure something with a rubber band and have to stretch the rubber band which, in turn, does not snap back to its original size, and we measure again with the stretched rubber band, the results will not be very reliable. The same object measured again will not have the same measurements because the measuring instrument is changed. Since reliability is compromised, one really has no idea about the measurements. Reliability has to exist to have meaning.

Without reliability and objectivity we have fiction, not science. Without both we cannot with any certainty point to the value, the certainty of the knowledge. To be sure, the novelist and poet provide us with vital insights, but they do not produce scientific material.

Consequences of a Lack of Theory in Any Field

To this point we have focused on the nature of theory and its functions. Until now, the lack of adequate theory in the field of organizational decision-making has led us to the normal consequences of a field without such guidance. Even a cursory purview of the literature in decision-making in organizations reveals lack of common terminology and commonly agreed-upon definitions. Griffiths (1959) decision-making theory, for example, is simply a model of problem-solving in that it states the steps of solving a problem in science.

This leads to a good deal of confusion. If a field cannot establish and stabilize its terminology and definitions how can its practitioners and passers-by communicate. Even with standard terminology and meaning, communication, as Benjamin Lee Whorf (1947, 1956) points out, is problematic and difficult. In point of fact, Whorf notes that, in a majority of cases communication is problematic even with people from the same socio-economic class and profession.

Similarly, since we have little theory to guide our practice, we wander all over the universe in our undirected and non-focused professional practice.

A SUMMARY OF THEORY - TO THIS POINT

The nature of theory has been the focus of the discussion. Theory was defined and its three major properties delineated, including its ability to describe a wide range of phenomena, to analyze and to predict using the theory as the basis for such prediction. We then examined the relationship of theory to practice, and, contrary to the prevalent American prejudice that typically separates theory and practice, we stated that they were

inextricably united, each indispensable to the other, and each based on the other. Also examined was theory's objectivity, its being comprehensive by covering a great range of facts, and the necessity of using theory to collect facts, instead of the reverse. We noted the limits of theory, that it is a construct created by human beings based on experience, and, therefore, influenced by their paradigms, beliefs, world views, cultures, sub-cultures, and personalities, among other factors. Two basic requirements for good theory, validity and reliability, were then discussed. Problems produced by lack of theory in scientific and professional fields were pointed out, including confusion created by unstandardized terminology and lack of commonly agreed-upon definitions.

Clearly, then, scientific theories cannot claim objectivity, not that they "map reality," (Zais, 1976), but, rather, that they provide a "guide to action" (Conant, 1952). They do not constitute a direct one-to-one relationship to practice.

A PARADIGM SHIFT IN MODERN SCIENTIFIC THINKING

Thomas Kuhn (1962, 1970) revolutionized thinking in science in his work analyzing great changes of thought in the history of scientific thinking. Kuhn focused on paradigms (that is, prevailing world views, models of thinking, ways of representing or explaining phenomena). Kuhn pointed to the shift in physics from no theory to Aristotelian Physics as a major shift in thinking. Similarly, the change from Aristotelian Physics to Newtonian Physics was a major paradigm shift in that the prevailing world view established by the old Aristotelian notions of matter were totally changed. Thus, he was proposing that "...every scientist works within a distinctive paradigm, a kind of intellectual gestalt that colors the way Nature is perceived." (Casti, 1989).

Other paradigm shifts in Western Civilization include the change from measuring time by the sun (inexact, to be sure) to a much more accurate mechanically measured, clock time. Another such massive change in thinking can be seen in the move from the conventional view of the earth as flat in the Middle Ages to considering it a sphere. Such a change, of course, erased the commonly held view that if one sailed far enough, one would fall off the edges. The change led people to believe that they could explore the planet. Another major change greatly facilitating exploration lay in developing the constructs of latitude and longitude. Prior to their creation, it was impossible to locate with accuracy any point on the surface of the earth, and then to communicate it to others. Literally, we did not know where we were.

Another major shift in human thinking includes changing our belief that the earth was the center of the universe (geocentrism); we now perceive the sun as the center of the solar system [heliocentrism, (and not even the center of the Milky Way galaxy)]. Aristotle's world view considered the elements of the universe as earth, air, fire, and water. We moderns view atoms as the basic units/building blocks of the universe. From Aristotle's day through the Middle Ages and into the early modern era, humors and temperaments were known to cause disease. The germ theory of disease has replaced that paradigm. And psychosomatic medicine has modified that paradigm.

Many other major changes in contemporary thinking from the past can be generated. Time, for example, in rural cultures generally is viewed as cyclical in nature, corresponding to the seasons. With such a world view, deadlines do not make much sense. On the other hand, many contemporary cultures, particularly those in the West, tend to view time

presently as linear in nature. Thus, deadlines can become a way of life. Once missed, we cannot recapture them, and the best laid plans go awry. The paradigm a culture holds of time tells us a great deal about the way the people function.

In the last century, those who were in jail were believed to have been born bad. We have abandoned that paradigm.

For the present work, perhaps a paradigm shift or a new construct may be in the making, since in the field of organizational decision-making, we now move from a theory of problem-solving to the first theory of phases of decision-making in organizations, hopefully creating a considerable shift in professional's and in practitioners' thinking. With the development of this theory, the practitioner can now describe, analyze, and predict behavior and thinking in the area of organizational decision-making. Obviously, and, happily, more theories will be proposed and different paradigms will emerge to compete with, and, perhaps, replace that proposed here.

THE THEORY: A PROCESS THEORY

Step #1: Sensing a Problem, Issue, Concern, Need, or Situation - and Developing a Plan

The theory being proposed is a process theory. The process of decision-making in organizations starts when one or more people perceive or sense a discontinuity, or a problem, or a need, or a concern. The process may begin as an attempt to recognize the situation. This generally leads to an idea of some sort which can develop into a tentative or initial plan, however loosely perceived or vaguely defined at first. The "plan" could be an intention to do something, or intended activities, or intended outcomes to deal with the situation, problem, issue, or concern. Recognizing the existence of an issue or concern

implies an intention to do something about it, a plan, however vague.

Another way of looking at this step is to consider any problem or concern as an opportunity.

This process is applicable both to formal and informal organizations, to formal and informal decision-making.

Step #2: Generating Interactions Among People Involved

The next process in making decisions about the problem or issue consists in getting key people in the organization [if a business, key administrators and employees; if an informal organization, a family, a peer or a work group; if a school, teachers, supervisors, administrators, and (sometimes, even), clients (students)], together to work on these intentions, and intended outcomes]. Thus, we generate a series of interactions among individual reference groups and those people involved. It is also noteworthy that the interactions commence as people communicate their purposes and goals to define and solve a problem or issue or concern or situation. Thus, while this theory points to a series of processes, it is clear that those processes can and do become mixed, and are not in clear, sequential order.

The "Interaction" phase provides opportunities to explore the "problem", or "concern", or "issue" through others' eyes, others' perceptions. At this point in the process, a more thorough definition of the problem may occur, an utterly indispensable component of the process. It makes little sense to search "... for solutions to un- or ill-defined problems" (Hills, 1975). Thus, interaction may clarify problems and issues.

At this point, (and certainly in the first step, Sensing the Problem), oft-hidden agenda

issues and concerns may arise, such as administrators' or power groups' wishes or needs to retain and/or expand their power. Similarly, such issues as race, ethnicity, and gender may emerge as potent concerns influencing people's interactions with each other. The multiplicity of issues generating in our society may arise, such as the Far Right's religious concerns, which contributed to the ouster of the New York Board of Education's Chancellor. Teachers may view efforts toward any reform such as restructuring with cynicism, which may surface as people begin to interact. The point is, that people bring open and hidden issues and concerns into their interaction within the organization.

Step #3: The Process Of Negotiating

In the preceding "Interaction" phase, people interact to define their intentions, purposes, viewpoints, interests, hidden agendas (hopefully), institutional situations and limitations, and much more. As the interactions continue and ideas emerge, or start to come together, a series of negotiations begin to emerge and develop. Indeed, if the implementors are involved this early in the process (in business organizations, the employees; in hospitals, the nurses; in churches, synagogues, and temples, the lay members and religious leaders), the negotiations take place with a vengeance.

It is at this point in the process that the issues mentioned briefly in the second phase, interactions, may emerge more robustly. Power issues may become played out much more earnestly when the players realize that major consequences or outcomes (Step #4) hang in the balance depending upon agreements reached at this point. Similarly, gender issues often rise at this phase since people begin to visualize that decisions made have immediate consequences.

Efforts to restructure schools take their direction in this phase, with participants recognizing that decisions made can affect the organization for at least the immediate, if not the long-range, future. Governmental organizations involved with environmental concerns must deal with them at this stage. Decisions have to, and will, be made. Ultimately, the altered plan, in whatever form it emerges, develops.

Step #4: Consequences/Outcomes

The last process consists of the outcomes which may, but which usually may not, be what was originally intended. Thus, the last process occurs (not ends) as a consequence of the negotiations.

The acronym of **PINC** may be applied, utilizing the initials of each step.

Summary

To summarize, four processes are proposed:

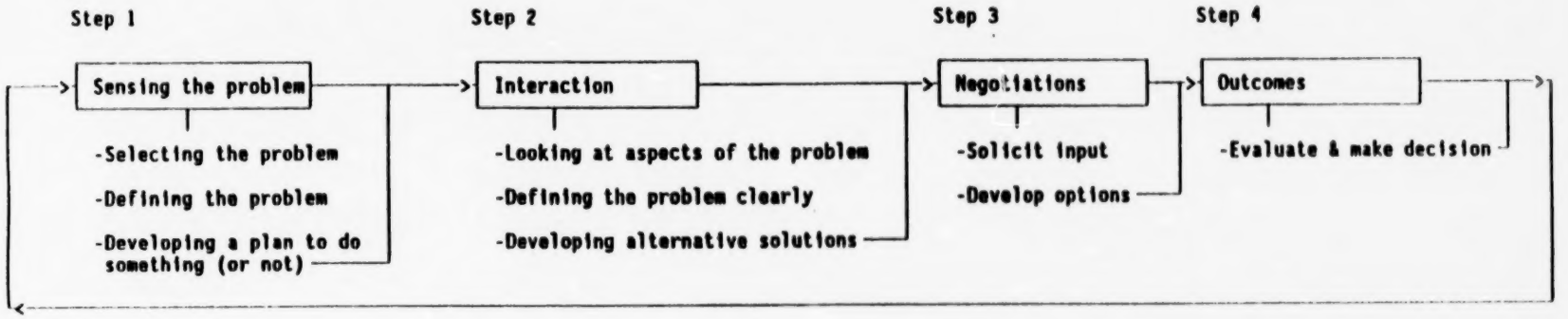
1. Sensing a problem, issue, concern, need, or situation and developing a plan
2. Generating interactions
3. Negotiating by the various players
4. Consequences, Outcomes

Figure 1 depicts the PINC theory.

THE PROCESS OF DECISION-MAKING -- AN ON-GOING CYCLE

Even after step #4, this process of organizational decision-making is not concluded. As the individuals and social systems work with the negotiated outcomes, these individuals and their social systems change various aspects of potential options. If it is a government agency, additions to regulations are developed, others are reinterpreted, and still others may

Figure 1
Steps in the Decision-Making Process (Generic)



be down-played or ignored. If it is an industry or business, management and the union (if one exists) negotiate a contract, and then management administers the contract. Grievances may be filed to change policies management has developed in its administration of the contract. Both sides gather evidence to alter the outcomes in the next round of negotiations. For example, if the outcome is a curriculum in a school, selected readings are changed, emphases are altered, new points are brought up, additional viewpoints are appended while old ones are eliminated or altered or subordinated. If it is the first phase of a restructuring plan, people examine each other's reactions to the outcome (perhaps one teaching team is established) to determine the next steps. So, they interact and negotiate to select the next outcomes. Thus, the process of change and alteration continues, and continues, and continues.

The consequences of this theory for the Holy Grail of organizational permanence and stability emerge starkly. The consequence is clear for religious organizations and religions as well. They simply evolve. The dynamics of organizations, in which various players interact and negotiate, point to this outcome (Wilson, et al., 1969; Pascale, 1990).

For example, even a cursory glance at religious sections of newspapers speaks to the dynamics of change in religious organizations. Some mainstream religions presently are in contractive phases; others are waxing. One faction seizes control of a religion, splinter groups break off who cannot abide by the power shift or by the change in doctrine, controversy thickens the air (and pages of newsprint). The continuous debate over the changing roles of women in religion points to this ongoing flux, and to the certainty of its persisting.

Many observers have noted the tendency of the military to fight future wars with the strategies of past wars. With the end of the Cold War, American military leaders found themselves in the interesting position of changing basic function and philosophy. Another major factor is the rapidity of technological change and its impact on military strategy and thinking. Thus, the post Cold War decades are seeing considerable change, among the first of which was a sizeable decline in budgetary allocation. (There was even some talk about forcible integration of hardware design and purchase among the services.) As another example of the impact of this organizational decision-making theory on our illusions of organizational permanence and stability, the example of curriculum in schools is instructive. The thrust to develop "teacher-proof" curriculum in which the teacher delivers a set and carefully prescribed and limited curriculum is doomed to fail. Teachers, as they work with the curriculum, change it, shape it to the special circumstances of their classes, their organizational culture, their personalities, their classroom culture, their available materials, and their and their students' circumstances.

According to this viewpoint, the classroom teacher, or teaching team, is the focal center of the curriculum delivery system process. Obviously, then, this theory is not a stage theory with clear, crisp, separate, stages. Rather, it is a process theory which focuses in the patterns of interactions involved in the process of producing and developing. In short, it is a theory of organizational decision-making as a social enterprise.

In many respects, it is similar to Whitehead's (1946) analysis of the phases of teaching a unit or a lesson plan:

Romance - beginning with an attention-getting or dramatic opening

Precision - gathering facts, developing data, doing the necessary details

Generalization - drawing conclusions, implications regarding what's it all about At any one time, both for Whitehead and this theory/practice, one phase may dominate, but more than one also may be present at any one time.

Obviously, this theory in large aspect is a theory of organizational behavior, as well as of organizational decision-making. Thus, the theory can be used to examine the decision-making taking place in any process that occurs in organizations as the people inside and outside of it sense an issue, plan, interact, and negotiate to produce agreements, and then take actions to implement them, producing consequences.

Mintzberg's (1979, p. 35) formulation of five organizational processes or flows might produce useful insights into the PINC organizational decision-making process as a social enterprise. Mintzberg proposed that organizations produce five flows in their functioning. These consist of a system of formal authority, of regulated (work) flows, of informal communications, of work constellations, and of ad hoc decision-making processes.

Interestingly, although Mintzberg labels one process as decision-making in nature, the others require decision-making in order to function. For example, in the formal authority flow, decisions have to be made in which people plan to do something, then interact, next negotiate, and finally generate consequences. Since people must be clear to whom they report, who has authority to hire and fire, and similar matters, decision-making is obviously called for in each of these areas. It would seem useful to conduct studies on the decision-making that occurs in each flow to determine empirically the nature of the process not only in one but also in a variety of organizations.

Hunt, Gagliardo, and Pearson's interestingly titled study ("Sugar Ray" School-Based Decision Groups, 1992) of school-based effective small decision-making groups is significant to this view of organizational decision-making as social process. Hunt et al found that the top quartile of elementary school decision-making groups made their decisions in combinations, much as did the two legendary boxing champion Sugar Rays, Robinson and Leonard. The researchers found that as the groups worked and developed experience in decision-making, and as the computer fed their results back, their speed and effectiveness increased. Contrary to popular belief, Hunt et al found no significant differences in effectiveness of decision-making groups based on gender, administrative experience, and race, but found positive that those with years experience in the field, if performing poorly, would change their patterns of making decisions, thereby improving their decision-making.

Comparison of decision-making in loosely-coupled versus tightly coupled organizations (Weick, 1982) might provide a useful focus of study to test the theory empirically. Additionally, varying leader behavior styles might provide interesting data and insights into organizational decision-making, as well as other functions.

As a case study example of the wide implications of this theory, the following is examined. Because of a variety of problems, some Japanese automobile manufacturers considered the possibility of assembling some units in the United States, step # 1, planning. For this to become a major decision, it had to involve a large number of people in interactions to develop a full sense of the extent of this move and its widespread implications. The ensuing negotiations must have included considerable discussion on just who would go, what per cent of employees would be Americans, what percentage of

administrators would be Japanese and what authority could be delegated to American administrators. At the end, the consequences or outcomes comprised the preceding decisions and a multitude of others needing addressing before action could be taken on the plan and its widespread tentacled implications.

The aftermath of the break-up of the Soviet Union provided an interesting example of the potential of the theory for policy-making for the government. Because of the demise of the USSR, a variety of proposals (plans) are being suggested in the military arena involving interaction among the chief players in Congress, the administration, and the military-industrial complex, among others. Negotiations immediately commenced, with the Secretary of Defense urging no reduction in military support. Other players took other positions as issues and plans shifted in the swirling vortex of negotiations embedded in the midst of a presidential race and the consequences of that race.

In this case, the theory revealed its utility in policy analysis and development.

In education, the theory can be used to describe, analyze, and predict extensively. The complex process of curriculum development, for example, occurs when dissatisfaction of individual teachers or administrators or supervisors becomes shared by others both inside and outside of the organization (Blumer, 1946). Alternatively, an administrator with a degree of authority may conclude that it is time to change a curriculum, such as social studies. This individual, or the people who begin to share some dissatisfaction with an area of curriculum, then develop a prospectus or a plan, however vague or loosely defined, to do something about changing it. Many districts operate on a five year plan, revising any curriculum on that basis. Proposals are made to examine a specific area of curriculum,

usually commencing with a committee appointed for the purpose. Committee members commence by interacting. Different interests involved negotiate their viewpoints, interests, and points of view in this process. For example, some may want to include Latin America in a course on World History, since most approaches tend to ignore this portion of the world as minor. This is discussed in various interactions, and in negotiations that may take place in the committee and in its sub social systems within, and sometimes, outside the school itself.

In the end, some consequences or outcomes have to be reported to the administrators who, in turn, may report to the Board of Education on the consequences of the PINC process. Perhaps greater emphasis on Latin America is included and perhaps it is not. The point is the focus on the process. This same process can be seen to operate as total districts and individual schools confront whether to move into restructuring and in any further decisions resulting from the outcomes of that process.

As noted, transactions among people within and external to the organization result in changes in the curriculum. These changes never stabilize into absolutely and eternally set curricula, but change continues to occur on the classroom level. From the perspective of our organizational decision-making theory, then, curriculum may be perceived as the process of negotiating agreements that people make in organizations as they interact, as they transact, and come to agreements about what is to be learned. Curriculum, the script for learning, is, indeed, a dynamic and changing script.

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

The purpose of this enterprise was to develop a theory/practice of administrative and organizational decision-making to improve administrative decision-making in education, to facilitate organizational change by promoting faculty involvement, and to increase the potential for success in educational reform efforts.

In this paper we pointed to the value of utilizing a decision-making strategy to empower educators in their decision-making efforts in administration generally, and in such areas as restructuring and in teacher empowerment. The theoretical perspective was based on three propositions. The first is that decision-making is at the heart of the administrative process. The second is that successful change in organizations must involve all members to benefit from additional perceptions and to promote their support. The third notion is that we only learn to make effective decisions through experience. The method of research was experiential and empirical, resulting in developing the conclusion that the organizational decision-making process comprises a social enterprise.

The resulting four phase process of the theory/practice of organizational decision-making presents practitioners with a construct that facilitates efforts in describing, analyzing, and predicting the precise phases to utilize in recognizing a problem and then in designing, developing, and implementing plans and processes to make effective decisions in any organization. The person(s) and organization(s) in possession of such knowledge now have a powerful tool with which to make the social process of organizational decision-making more effective and efficient.

We then dealt with the decision-making strategy or theory itself by first defining theory and noting the three major properties differentiating theory from models and taxonomies as its capacity to describe, analyze and predict. We then looked at the major functions of theory including its close relationship to practice, its necessity of being objective (within limits), and its capacity to be comprehensive, describing a great range of phenomena. Collecting facts bears a close relationship to the theories one holds inasmuch as one has to select from the myriad of facts available; one's beliefs and theories guide this effort. Two more indispensable aspects of theory were then discussed, its necessity to be valid and to have reliability.

The Theory and Practice of Organizational Decision-Making as a Social Enterprise was then presented as a process theory with its four phases delineated and its fluidity noted. These four phases or processes consist of:

1. Sensing a problem, issue, concern, need, or situation, and developing a plan.

2. Generating interactions among the players.

3. Negotiating by various players.

4. Consequences, outcomes.

The acronym PINC is utilized.

Next, we pointed to the Theory and Practice of Organizational Decision-Making as a Social Enterprise as an on-going cycle. Once a round of decisions is made, other issues and concerns arise or become consequences of the outcomes, and then have to be dealt with by the people in the organization, causing a new round in the process to develop. Additionally, as people work with the consequences, they change various aspects of them.

We note that total organizational stability becomes not only an impossible dream, but also an undesirable goal.

Last, several examples or case studies of the use of the theory and practice were projected. One in organizational decision-making by Japanese auto-makers was briefly delineated, as was another in policy analysis and action for governments, a third in changing a curriculum design in a school, and a fourth relating to restructuring efforts.

Recommendations for Further Study

Since decision-making comprises the heart of the administrative process, careful analysis of actual case studies is recommended. Of particular interest would be studies of the decision-making strategies utilized in each of the five organizational flows or processes as proposed by Mintzberg. While he speaks of decision-making as one of the five flows, obviously each of the other flows requires decision-making to unfold.

Hunt's study, which charted the course of improvement in speed and quality of decision-making with experience, comprises an area for further intense study. How do the proposed phases fare as participants develop more experience and increase their speed in decision-making? With knowledge of the theory/practice discussed in this paper, would participants improve both speed and quality?

Decision-making in loosely-coupled and tightly-coupled organizations might be studied, along with that taking place under various leadership styles. Case studies of decision-making occurring in successful and unsuccessful restructuring efforts could prove useful. Included might be current reform efforts in team building, consensus decision-making, site-based management, TQM, and the like. The kind of decision-making occurring in

involvement strategies versus more authoritarian models might be evaluated against administrative and organizational effectiveness criteria.

We can then work directly and empirically on the process Barnard identified more than half a century ago as the heart of administration, decision-making.

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